We Claim:

1. A process for the manufacture of omega form of anhydrous Gatifloxacin which comprises:
   a) purifying Gatifloxacin by dissolving it in methanolic potassium hydroxide solution;
   b) filtering said solution obtained in step (a);
   c) adding an acid to said solution from step (b) to precipitate Gatifloxacin in a suspension;
   d) refluxing said suspension of step (c) and cooling the same;
   e) filtering and drying the product of step (d) to obtain said omega form of anhydrous Gatifloxacin.
2. A process for the manufacture of omega form of anhydrous Gatifloxacin which comprises: :
   a.) reacting 1-cyclopropyl-6,7-difluoro-1,4-dihydro-8-methoxy-4-oxo-3-quinolone carboxylic acid with 2-methylpiperazine in dimethylsulfoxide;
   b.) adding a suitable organic solvent to the above reaction mass;
   c.) filtering and/or centrifuging the the product of step b) to isolate the product;
   d.) adding a lower alcohol to the isolated product to form a slurry;
   e.) filtering and/or centrifuging the slurry to obtain a wet cake of Gatifloxacin;
   f.) drying the above wet cake of Gatifloxacin;
   g.) purifying the above Gatifloxacin by dissolving it in methanolic potassium hydroxide solution;
   h.) filtering the solution obtained in step (g);
   i.) adding an acid to the solution from step (h) to precipitate Gatifloxacin in a suspension;
   j.) refluxing the suspension of step (i) and cooling the same;
   k.) filtering and/or centrifuging the product and drying the product to obtain omega form of anhydrous Gatifloxacin.
3. A process as claimed in claim 1 wherein in step b), the organic solvent employed is selected from the group consisting of acetone, acetonitrile, ethyl acetate, isopropyl alcohol, and toluene or mixture thereof.
4. A process as claimed in claim 1 wherein in step (b) the organic solvent is employed in 1-10 times, preferably 5 times by volume as that of dimethylsulfoxide taken.

5. A process as claimed in claim 1 wherein in step (d) said lower alcohol is methanol.
6. A process as claimed in claim 1 wherein said lower alcohol is employed in an ampout of 1-10 times by volume, preferably 2-5 times by volume, as that of 1-cyclopropyl-6,7-difluoro-1,4-dihydro-8-methoxy-4-oxo-3-quinolone carboxylic acid.
7. A process as claimed in claim 1 wherein in step d), the slurrying in methanol is carried out on at a temperature of 10-65°C, preferably 25-40°C.
8. A process as claimed in claim 1 wherein the product of step e) is dried at a temperature of 40-75°C, preferably 50-60°C
9. A process as claimed in claim 1 or 8 wherein the product obtained after drying and/or centrifuging is dried for 4-10 hrs, preferably 6-7 hrs.
10. A process as claimed in claim 1 or 2 wherein the purification of Gatifloxacin is carried out by dissolving gatifloxacin in methanolic potassium hydroxide solution while heating at a temperature of 20-100°C, preferably 25-40°C.
11. A process as claimed in claim 1 or claim 2 wherein the amount of potassium hydroxide employed is 1-2 moles, preferably 1.2 moles as that of Gatifloxacin..
12. A process as claimed in claim 1 or 2 wherein prior to the precipitation of said Gatifloxacin as a suspension, the pH of the solution is adjusted to between 6-8, preferably, 7-7.5.
13. A process as claimed in claim 12 wherein said pH is adjusted by adding acetic acid.
14. A process as claimed in claim 1 or claim 2 wherein said suspension is refluxed with methanol for 0.5-5.0 hours, preferably for 1.0 hour.
15. A process as claimed in claim 14 wherein the reaction mass obtained after refluxing in methanol is cooled to a temperature of 5-50°C, preferably 25-30°C.
16. A process as claimed in claim 2 wherein in step g), the amount of methanol employed is 5-15 times, preferably 10 times as that of Gatifloxacin .
17. A process as claimed in claim 1 or 2 (e) wherein said drying is carried out at a temperature in the range of 30-100°C, preferably 70-80°C.
18. A process as claimed in claim 1 or claim 2 wherein said drying of wet cake is carried out for 10-50 hrs, preferably 30-35 hrs.
19. A process as claimed in claim 2 wherein the gatifloxacin so obtained is further treated with solvent systems.

20. A process as claimed in claim 20 wherein said solvent systems comprise of one or more of methanol, aqueous methanol or cyclohexane.